

A Revision of the genus *Calospasta* LeConte.

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The genus *Calospasta* was founded by Leconte (Class. Col. N. Amer., 1862, p. 273) with *Epicauta elegans* Lec. as type. While obviously related to *Tegrodera* Lec. and *Eupompha* Lec. yet the genus would appear to be a good one, bringing together what is, on the whole, a natural little group of species, although two forms hitherto included will have to be excluded (*vide infra*). The home of the genus seems to be the southern part of North America, especially southern California, though at least one species (*sulcifrons* Champ.) occurs in Mexico. In looking through the material referred to this genus in the United States National Museum and in the Philadelphia Academy of Natural Sciences some points of interest have come to light which are herewith presented.

My arrangement of the material which I have examined is as follows—this is not yet proposed as an entirely natural one, but as convenient in comparing the characters of the different species.

Genus **GYNAPTERYX** Fairm. et Germ.

Gynapteryx Fairm. et Germ, Ann. Soc. Ent. Fr., 1863, p. 260.

Gynapteryx Gemm. et Har., Cat. Col., vii, 1870, p. 2130.

1. **Gynapteryx opacus** G. Horn.

Megetra opaca G. Horn, Trans. Am. Ent. Soc., II, p. 139, ♀.

Calospasta opaca G. Horn, Proc. Cal. Acad. Sci., 2, IV, p. 438, ♂ ♀.

♂.—General form as in the genus *Tetraonyx* Latr., entirely black, opaque, head and thorax rather smooth, antennae moniliform, elytra varying from punctate to coarsely scabrous, winged. Length 12 mm.

♀.—General form as in the genus *Megetra* Lec., black, opaque, head slightly punctured on occiput, thorax pentagonal, broader than long, sides obtusely angulate, elytra intricately rugose, apterous. Length 15 mm.

There seems to be no doubt but that these forms represent one species, although in the apterous ♀ the meso-coxae of course overlap the metasternum while in the winged male they do not. They have been taken together and *in copula* and I have before me 69 specimens (40 ♂'s and 29

♀'s) which seem to prove conclusively that we are only dealing with a remarkable sexual dimorphism. The species fits fairly well in Fairmaire and Germain's genus *Gynapteryx* to which I have referred it. The only character in which *M. opaca* G. Horn differs structurally from their diagnosis of *Gynapteryx* is in having unequal claws, and I am disinclined to propose a new genus on this character (which is easily misinterpreted) without an examination of the type of *Gynapteryx*, the which I would rather expect to show the claws subequal, just as we have one species of *Calospasta* (*C. viridis*) with the claws of nearly equal length. Dr. Geo H. Horn, on the occasion of the discovery of the ♂♂ of "*Megetra*" *opaca* by Prof. D. W. Coquillett, discussed the systematic position of his species but apparently was not acquainted with Fairmaire and Germain's genus, as he would certainly have referred to so remarkable a coincidence as a second species with apterous ♀, had he known of it. Horn after examining the ♂'s of Coquillett's collection now before me, placed *M. opaca* in Lecomte's genus *Calospasta*. In doing this he remarks regarding his species, as did Fairmaire and Germain five years before regarding theirs, that such forms mark the transition between the Meloine and Lyttine groups of the family. The only other species of *Gynapteryx* is *flavocinctus* Fairm. et Germ., the type of the genus. It can be separated from Horn's species as follows:

♂.—Nitid, thorax coarsely punctate, elytra black, with yellow markings.

flavocinctus.

Opaque, thorax almost smooth, elytra entirely black **opacus.**

♀.—Head and thorax reticulated, elytra testaceous **flavocinctus.**

Head and thorax almost smooth, elytra black **opacus.**

Genus* **PLEUROPASTA** Wellm., gen. nov.

A Calospastae Lec. *affinis sed differt caput inter oculus gibbosum, vertex valde rotundatus; elytrisq. fortiter costatis.*
♂ *tarsi antici simplicibus.*

Species typica Calospasta mirabilis G. Horn.

Genus allied to *Calospasta* Lec. Head with vertex very

* *πλερα*, costae; *πασσω*, orno.

rounded, gibbous between the bases of the antennae; *antennae* as in *Calospasta*, very closely jointed, the articulations scarcely visible; *elytra* strongly costate somewhat as in *Pleuropompha* Lec.; anterior tarsi of ♂ simple.

2. *Pleuropasta mirabilis* G. Horn.

Calospasta mirabilis G. Horn, Trans. Am. Ent. Soc., 1870, p. 121.

Pale rufous except the antennae which are lemon yellow with rufous markings. Head oval, very rounded at vertex, gibbous between bases of antennae, with a few scattered punctures. Thorax oval, deeply impressed medianly. Elytra with margins reflexed and with four conspicuous, elevated costae on each elytron; ♂ front tarsi simple, but last ventral segment emarginate. Length 9.5 mm.

Genus **CALOSPASTA** Lec.

Calospasta Leconte, Class. Col. N. Amer. 1862, p. 273.

Calospasta Horn, Trans. Amer. Ent. Soc., 1870, p. 92.

Calopasta Gemm. et Har., Cat. Col., 1870, p. 2147.

I am retaining in this genus twelve species including one that is new. These may be separated as by the following table.

Spurs of hind tibiae similar.

Spurs of hind tibiae slender and pointed.

Face longitudinally impressed.

Black, with yellowish red head and humera **histrionica**.

Face not longitudinally impressed.

Thorax longitudinally impressed.

Color green **viridis**.

Thorax not longitudinally impressed.

Head and thorax punctate **elegans**.

Head and thorax smooth **perpulchra**.

Head punctate, thorax smooth **decolorata**.

Spurs of hind tibiae thick and truncate.

Black, with yellowish red head and elytra **schwarzi**.

Spurs of hind tibiae dissimilar, the inner slender and pointed, the outer thick and truncate.

Face longitudinally impressed.

Thorax punctate, with smooth space down middle. . . . **sulcifrons**.

Face not longitudinally impressed.

Entirely black.

Thorax wider than long **fulleri**.

Thorax longer than wide **moesta**.

Black, with red thorax.

Head and thorax punctulate and furnished with hairs. **morrisoni**.

Head and thorax smooth, without hairs **nemognathoides**.

Red, with metallic elytra and venter **wenzeli**.

3. **Calospasta histrionica** G. Horn, Pr. Am. Phil. Soc., xxix, 1891, p. 100.
Calospasta histrionica Champ., Mem., Soc. Ent. Belg., 1899, p. 169.

Black, rather nitid, head and humeri yellowish red; antennae filiform, joints rather closely articulated, head deeply impressed in median line; thorax longer than wide; elytra at base nearly twice as wide as thorax; first three joints of anterior tarsi of ♂ gibbous and deeply grooved longitudinally and last segment of abdomen slightly notched. Length 10 mm.

4. **Calospasta viridis** G. Horn, Trans. Am. Ent. Soc., 1883, p. 312.
Calospasta viridis G. Horn, Proc. Amer. Phil. Soc., xxix., 1891, p. 100.

Green or bluish green, somewhat nitid, feebly pubescent; head sparsely punctate; antennae short, filiform with joints closely articulated; thorax not much wider than long, the median line somewhat impressed; elytra rugose; upper and lower portions of tarsal claws nearly equal; ♂ tarsi simple, last ventral segment emarginate. Length 7 mm.

5. **Calospasta elegans** Lec., Ann. Lyc. Nat. Hist., N. Y., v, p. 161.
Calospasta elegans G. Horn, Proc. Amer. Phil. Soc., xxix, 1891, p. 101.

Black with bluish tinge to elytra; head and thorax rather sparsely punctate; antennae filiform, joints rather closely articulated all the joints being longer than wide; a deep impression just above the clypeus; elytra dull blue-black with an irregular yellow vitta on each, starting from humerus, interrupted near apex; anterior ♂ tarsi somewhat dilated, especially the first joint, and last ventral segment of abdomen feebly emarginate.

Var. *humeralis* G. Horn, Trans. Amer. Ent. Soc., 1870, p. 93, Proc. Amer. Phil. Soc. xxix, 1891, p. 101.

Elytral vitta reduced to a triangular humeral spot. Length 11 mm.

6. **Calospasta perpulchra** G. Horn, Trans. Am. Ent. Soc., 1870, p. 92.
Calospasta perpulchra G. Horn, Proc. Amer. Phil. Soc. xxix, 1891, p. 101.

Dark blue; head and thorax almost black, coarsely and sparsely punctate, thorax longer than broad; elytra nearly twice as broad as thorax, with three yellow bands interrupted at the suture; ♂ tarsi and last ventral segment as in preceding species, elytral coloration variable, ranging from almost confluent yellow markings to entirely blue elytra. Length $8\frac{1}{2}$ mm.

7. **Calospasta decolorata** G. Horn, Proc. Cal. Acad. Sci., iv, 1894, p. 437.
Calospasta decolorata Champ., Mem. Soc. Ent. Belg., 1899, p. 169.

Deep violet; head irregularly punctate, antennae short compact; thorax wider than long, coarsely punctate in ♀ almost smooth in ♂; elytra at

base wider than thorax, scabrous, reddish yellow in ♂, with oval piceous spot on middle of suture in ♀; last ventral segment of ♂ notched. Length 8 mm.

8. **Calospasta schwarzi** Wellm., sp. nov.

C. nigra; capite (oculis et oris partibus exceptis) elytrisque flavo-rufis. Caput inter oculus valde canaliculatum. Thorax angustus latitudine longior. Scutellum subtiliter rugulosum. Elytra oblonga, rugulosa. Pedes pallido-pubescentes, femora dense punctulata; ♂ tarsi antici articulis tribus primis gibbosis, longitudinaliter non sulcatis. Long. Corp. 8.5 mm. Lat. elytr. 3 mm.

Hab. Panamint Valley, California, ab A. Koebele, Apr., 1891, collecta.

Typ. Cat. No. 12,129, U. S. N. M.

Black, head (except eyes and mouth parts) and elytra yellowish red. Head almost smooth, very sparsely and feebly punctulate, longitudinally broadly channelled in front, vertex somewhat raised. Antennae not closely joined together, second joint very short, third distinctly longer than fourth, black except third joint has the upper surface of its basal half reddish. Eyes as in *histrionica* G. Horn. Last joint of maxillary palpi obliquely truncate. Thorax rather narrow, longer than wide, almost smooth, very sparsely and feebly punctulate and with a few minute scattered hairs. Scutellum triangular, finely rugulose. Elytra oblong, rather square at humeral and apical angles, rugulose, with a few very small white hairs. Legs rather closely beset with small, fine pale hairs, the femora pretty densely punctulate. The first three tarsi of the ♂ front legs are gibbose but not excavated; under surface of body sparsely beset with pale hairs which are longer than those on the legs.

A very distinct species. Its closest ally is *histrionica* G. Horn from which it may be told at once by the ♂ anterior tarsi not being sulcate and by its concolorous elytra.

I take much pleasure in associating this interesting species with the name of Mr. E. A. Schwartz of Washington, D. C., to whom American coleopterology owes a great debt.

9. **Calospasta sulcifrons** Champ., Biol. Centr.-Amer., Col., iv, 2, p. 394.

Calospasta sulcifrons Champ., Mem. Soc. Ent. Belg., 1899, p. 170.

I have not seen this species. Champion's description gives the head and thorax as reddish yellow with vertex and median stripe to thorax black; elytra black with broad reddish yellow margin to base and sides; underside metallic. The head and

thorax are nitid, sparsely and finely punctured, the former medianly channeled, the latter with a rather broad impunctate space down the middle; antennae short, filiform; elytra nearly twice as wide as thorax, finely and rugosely punctured; anterior ♂ tarsi swollen and ferruginous, and sixth ventral segment emarginate.

10. **Calospasta fulleri** G. Horn, Trans. Amer. Ent. Soc., 1878, p. 59.

Calospasta fulleri G. Horn, Proc. Amer. Phil. Soc. xxix, 1891, p. 101.

Entirely black, opaque form as in *Tetraonyx* Latr., surface sparsely covered with rather long black hairs; head finely sculptured, antennae stout, filiform; thorax wider than long and as wide as head; elytra nearly twice as wide as thorax, scabrous, pubescent; anterior ♂ tarsi simple, last ventral segment triangularly emarginate. Length 9.5 mm.

This species at the first glance resembles the ♂ *Gynapteryx opaco* (*vide supra*) rather closely but can be separated as follows:

Pubescence long, first two joints of antennae hairy, thorax dull, almost smooth and impunctate **G. opaca.**

Pubescence short, first two joints of antennae not hairy, thorax somewhat nitid, coarsely, irregularly and sparsely punctured.

G. fulleri.

11. **Calospasta moesta** G. Horn, Trans. Am. Ent. Soc., 1878, p. 59.

Calospasta moesta G. Horn, Proc. Amer. Phil. Soc. xxix, 1891, p. 101.

Black, nitid, elongate; head and thorax sparsely punctured; antennae thickened from within out, joints submoniliform; thorax longer than wide, elytra nearly twice as wide at base as thorax; anterior ♂ tarsi simple and last ventral segment feebly triangularly emarginate. Length, 22 mm.

12. **Calospasta morrisoni** G. Horn, Pr. Am. Phil. Soc., xxix, 1891, p. 102.

Calospasta morrisoni Champion, Mem. Soc. Ent. Belg., 1899, p. 170.

Black, thorax orange red, elongate; head and thorax sparsely punctate and beset with short black hairs; head usually with central rufous spot; antennae slightly thickened externally; joints moniliform; thorax scarcely longer than wide; elytra scabrous; anterior ♂ tarsi simple, last ventral segment broadly triangularly emarginate. Length, 13 mm.

13. **Calospasta nemognathoides** G. Horn, Tr. Am. Ent. Soc., 1870, p. 92.

Calospasta nemognathoides G. Horn, Proc. Amer. Phil. Soc. xxix, 1891, p. 102.

Black, thorax red, moderately nitid; head and thorax smooth, ~~not~~ provided with hairs; antennae rather slender, joints not moniliform;

